UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/063,289	04/21/1998	REJEAN GAGNE	T8463785US	4185

26643 7590 08/23/2004

PETER J. GORDON, PATENT COUNSEL
AVID TECHNOLOGY, INC.
ONE PARK WEST
TEWKSBURY, MA 01876

EXAMINER	
BASHORE, WILLIAM L	

ART UNIT	PAPER NUMBER
2176	

DATE MAILED: 08/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/063,289	GAGNE, REJEAN	
	Examiner	Art Unit	
	William L. Bashore	2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 May 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5/17/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to communications: Request for Reconsideration (hereinafter the Request) filed 5/5/2004 to the original application filed **4/21/1998**, IDS filed 12/20/1999 as paper 3, 1/21/2003 as paper 21, and 9/11/2003 as paper 25.

2. The two EPO communications from Applicant's IDS filed 5/17/2004 have not been considered. It is unclear to the examiner whether EPO communications can be considered prior art.

3. Claims 1-11 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Boezeman and Hamakawa.

4. Claims 1-11 are pending. Claims 1, 4, 11 are independent claims.

Claim Rejections - 35 USC § 103

5. **The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:**

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. **Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boezeman et al. (hereinafter Boezeman), U.S. Patent No. 5,889,514 filed 3/29/1996 and issued 3/30/1999, in view of Hamakawa et al. (Hereinafter Hamakawa), Object composition and playback models for handling multimedia data, ACM Proceedings of the conference on Multimedia '93, August 2-6, 1993, pp.273-281.**

In regard to independent claim 1, Boezeman teaches:

- time based data of at least two differing data types (Boezeman Figure 7 items "Animation", AudioPlay", "VideoPlay"; compare with claim **1** preamble "*A method for accessing....comprising the steps of*").

- selecting and positioning a first clip object representing a first selected time-based data source, with respect to a relative time line, said clips are of differing types, said relative time lines associated with global and local time lines (Boezeman, Figure 10 item 124, column 8 lines 15-20; compare with claim 1 "*selecting a first time-based data source comprising a first data type from a selection of available data sources*", and "*positioning a first clip object....for accessing the first time-based data source*").

- selecting and positioning a second data-clip, comprising a different data type as compared to said first selected time-based data source (Boezeman, Figure 10 item 140, column 8 lines 15-20; compare with claim 1 "*selecting a second time-based data source....a different data type than the first time-based data source*", and "*positioning a second clip object....for accessing the second time-based data source*").

- one or more source clips and spacers positioned in an editable graphical object utilizing start and duration times (rT and aT), said positioning relative both to each other (rT), as well as to a global time line (aT) (Boezeman, Figure 2, column 8 lines 10-20, 34-40, 60-67, column 9 lines 15-25; compare with claim 1 "*creating at least one meta-clip object representing....distinct from the local time line*"). - Boezeman does not specifically teach said objects re-mapped to a global time line subsequent to repositioning of a meta-object. However, Hamakawa teaches an object composition model comprising multimedia objects, each with its own relative time line, temporally re-mapped with respect to a global time line in a box, utilizing "temporal glue" recalculation (Hamakawa p.274 column 1, Object Composition Model, sections: Temporal glue, Object hierarchy, relative location. Also see p.274 column 2, section Box, and p.275 Figure 4 (Box Example); compare with claim 1 "*such that the start time and duration of each of said....on the global time line*"). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Hamakawa to Boezeman, because of Hamakawa's taught advantage of automatic temporal re-mapping of time lines within groupings (meta-clips) of multimedia objects, providing increased convenience (due to the elimination for precise time line locations), to Boezeman's NLE editor (Hamakawa p.277 column 2, near bottom).

- clip data which can be selected and used as needed (Boezeman Figure 2). Boezeman does not specifically teach incorporation of a meta-clip to a list of available resources. However, Hamakawa teaches a method incorporating a group of multimedia objects (Hamakawa p.275 Figure 4; compare with claim 1 "*adding*

the at least one meta-clip object to said list of available data sources"). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Hamakawa to Boezeman, because of Hamakawa's taught advantage of hierarchically categorized composite objects, providing an increased number of object groupings to be used by Boezeman's NLE system.

In regard to dependent claim 2, Boezeman does not specifically teach a method of incorporating a meta-clip object in cooperation with other objects, whereby said objects within a meta-clip object are mapped to said meta-clip object, and in turn, mapped to a global time line. However, Hamakawa teaches an object composition model comprising multimedia objects, each with its own relative time line, temporally re-mapped with respect to a global time line in a box, utilizing "temporal glue" recalculation (Hamakawa p.274 column 1, Object Composition Model, sections: Temporal glue, Object hierarchy, relative location. See also p.274 column 2, section Box, and p.275 Figure 4 (Box Example); compare with claim 2). In addition, Hamakawa incorporates said composite objects within other composite objects in the form of a composite hierarchy, whereby all relative time lines are re-calculated as needed (Hamakawa p.274 Figure 3). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Hamakawa to Boezeman, because of Hamakawa's taught advantage of hierarchical temporal re-mapping of time lines within groupings of multimedia composite objects, providing increased convenience (due to the elimination for precise time line locations - Hamakawa p.277 column 2, near bottom) to Boezeman's NLE method.

In regard to dependent claim 3, Boezeman teaches incorporating effects such as play spacers, hide spacers, and move spacers, which can be positioned and manipulated within the invention as taught by Boezeman (Boezeman column 2 lines 49-53; compare with claim 3). Claim 3 would have been obvious to one of ordinary skill in the art at the time of the invention, in view of Boezeman, because of Boezeman's taught advantage of editable spacer effects, which in turn are examples of special effects applied to media editing systems (NLE) as taught by Boezeman.

In regard to independent claim 4, Boezeman teaches:

- teaches positioning of a first clip object representing a first selected time-based data source, with respect to (and associated with) global and local time lines, incorporating a start/duration time (Boezeman, Figure 10 items 124, 140, column 8 lines 15-20; compare with claim 4 "*creating at least one meta-clip object*", and 4 "*a first clip object representing a first time based data source selected from a list of available data sources, and a second clip object representing a second time based data source selected from the list of available data sources*").

- selection and positioning of a second data-clip, comprising a different data type as compared to said first selected time-based data source, and with start/stop times (Boezeman, Figure 10 items 124, 140, column 8 lines 15-20; compare with claim 4 "*the second data source being of a different data type than the first data source*", and 4 "*a respective start time and duration* ").

- one or more source clips and spacers positioned in an editable graphical object utilizing start and duration times (rT and aT), said positioning relative both to each other (rT), as well as to a global time line (aT) (Boezeman, Figure 2, column 8 lines 10-20, 34-40, 60-67, column 9 lines 15-25; compare with claim 4 "*a respective local time line distinct from the global time line*", and **4(I)** "*clip objects being positioned relative to the local time line*").

- Boezeman does not specifically teach a method of incorporating at least one meta-clip to a list of available resources. However, Hamakawa teaches a method incorporating a group of multimedia objects (Hamakawa p.275 Figure 4; compare with claim 4 "*adding said at least one meta-clip object to the list of available data sources*"). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Hamakawa to Boezeman, because of Hamakawa's taught advantage of hierarchically categorized composite objects, providing an increased number of object type groupings to be used by the NLE system as taught by Boezeman.

- one or more source clips are positioned in an editable graphical object utilizing relative start and duration times, and with said positioning relative both to each other, as well as to an absolute time line

(Boezeman, Figure 2, column 8 lines 10-20, 34-40, 60-67, column 9 lines 15-25; compare with claim 4 "*selecting at least one of the meta-clip objects from the list....the global time line*").

- Boezeman does not specifically teach a method whereby said objects are positioned and re-mapped to a global time line according to respective local time lines. However, Hamakawa teaches an object composition model comprising multimedia objects, each with its own time line, temporally re-mapped with respect to a global time line in a box, utilizing "temporal glue" recalculation (Hamakawa p.274 column 1, Object Composition Model, sections: Temporal glue, Object hierarchy, relative location. Also see p.274 column 2, section Box, and p.275 Figure 4 (Box Example); compare with claim 4 "*re-mapping to the global time line the start time....relative to the global time line*"). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Hamakawa to Boezeman, because of Hamakawa's taught advantage of automatic temporal re-mapping of time lines within groupings of multimedia objects, providing increased convenience (due to the elimination for precise time line locations, (Hamakawa p.277 column 2, near bottom) to the NLE method as taught by Boezeman.

In regard to dependent claim 5, claim 5 incorporates substantially similar subject matter as claimed in claim 2, and is rejected along the same rationale.

In regard to dependent claim 6, claim 6 incorporates substantially similar subject matter as claimed in claim 3, and is rejected along the same rationale.

In regard to dependent claim 7, claim 7 incorporates substantially similar subject matter as claimed in claim 3, and in further view of the following, is rejected along the same rationale.

Boezeman teaches incorporation of spacer effects, which can be positioned and manipulated within an edit track (Boezeman column 2 lines 47-58). Hill does not specifically teach a method of incorporating said effects to at least one meta-clip object. However Hamakawa teaches a method of composite objects incorporating media clips with relative time lines (Hamakawa p.275 Figure 4; compare with claim 7). It would

have been obvious to one of ordinary skill in the art at the time of the invention to apply Hamakawa to Boezeman, because of Hamakawa's taught advantage of composite objects, providing an additional object type (including tracks) for the incorporation of effects, as taught by Boezeman.

In regard to dependent claim 8, Boezeman does not specifically teach the use of operator(s) to modify data from each time-based data source in a meta-clip. However, Hamakawa teaches a method of a composite object "Box", incorporating a conglomeration of different media object types along with relative time lines assigned per said type, with said Box incorporated as a composite object within a hierarchy of objects (Hamakawa p.274 Figure 3, and p.275 Figure 4; compare with claim 8). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the Hamakawa to Boezeman, because of Hamakawa's taught advantage of composite objects, providing a conglomeration of track types available for the incorporation of effects, as taught by Boezeman.

In regard to dependent claim 9, Boezeman teaches a method of play spacers, hide spacers, and rate spacers, whereby a clip is shortened or lengthened, hidden and played when necessary (Boezeman column 2 lines 47-58; compare with claim 9).

In regard to dependent claim 10, claim 10 is rejected using the Examiner's argument and rationale as set forth in the rejection of claim 9.

In regard to independent claim 11, Boezeman teaches:

- a non-linear editing system comprising time based data of at least two differing data types (Boezeman Figure 7 items "Animation", AudioPlay", "VideoPlay", also Abstract; compare with claim 11 "A non-linear editing system", and "...*time based data of at least two differing data types...*").

- an internal hard drive, a CPU, a display screen, and an input device (Boezeman Figure 1; compare with claim **11** "a storage device...", "*a computer operatively connected...*", "*at least one output device...*", and "*at least one input device...*").

-one or more source clips positioned in an editable graphical object utilizing relative start and duration times, with said positioning relative both to each other (local time lines), as well as to an absolute time line (Boezeman, Figure 2, column 8 lines 10-20, 34-40, 60-67, column 9 lines 15-25, compare with claim 11 "*a first object representing a first one of the stored data sources, a second object representing a second one*", and claim 11 "*each comprising a respective local time line*", and 11 "*clip objects are positioned on the local time line*").

- Boezeman does not specifically teach a method of incorporating a meta-clip object. However, Hamakawa teaches an object composition model comprising multimedia objects, each with its own relative time line (Hamakawa p.274 column 1, Object Composition Model, sections: Temporal glue, Object hierarchy, relative location. See also p.274 column 2, section Box, and p.275 Figure 4 (Box Example); compare with claim 11 "*creating with the computer at least one meta-clip object*"). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Hamakawa to Boezeman, because of Hamakawa's taught advantage of composite objects, providing a way to hierarchically organize groups of tracks within Boezeman's NLE editor.

- selecting and positioning a first clip object representing a first selected time-based data source, with respect to a relative time line, said clips are of differing types (Boezeman, Figure 10 item 124, column 8 lines 15-20; compare with claim 11 "*the second data source being of a different data type than the first data source*", and 11 "*a respective start time and duration* ").

- one or more source clips positioned in an editable graphical object utilizing relative start and duration times, and with said positioning relative both to each other, as well as to an absolute time line (Boezeman, Figure 2, column 8 lines 10-20, 34-40, 60-67, column 9 lines 15-25 ; compare with claim 11 "*selecting with the computer at least one of the meta-clip objects*").

- Boezeman does not specifically teach a method of using an NLE object in cooperation with other objects, whereby said objects are positioned and re-mapped to a global time line according to respective local time lines. However, Hamakawa teaches an object composition model comprising multimedia objects, each with its own time line, temporally re-mapped with respect to a global time line in a box, utilizing "temporal glue" recalculation (Hamakawa p.274 column 1, Object Composition Model, sections: Temporal glue, Object hierarchy, relative location. Also see p.274 column 2, section Box, and p.275 Figure 4 (Box Example); compare with claim 11 "*define with the computer....and said global time line*"). It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Hamakawa to the method of Boezeman, because of Hamakawa's taught advantage of automatic temporal re-mapping of time lines within groupings of multimedia objects, providing increased convenience (due to the elimination for precise time line locations, (Hamakawa p.277 column 2, near bottom) to the NLE method as taught by Boezeman.

Response to Arguments

7. Applicant's arguments (the Request) filed 5/17/2004 have been fully and carefully considered but they are not persuasive.

Applicant argues on page 3 of the Request that Hamakawa Figures 12, 14, 16 do not specifically teach "construction" of a multimedia program, and do not suggest that the underlying constructs used in Hamakawa are timelines.

Applicant additionally argues on page 5 of the Request that the cited references do not teach or suggest positioning objects of differing types on a local time line as part of a meta-clip, and when the meta-clip object is positioned on a global time line, the start time and duration of each clip in the meta-clip is remapped to the global timeline.

Applicant's arguments on pages 6-9 are substantially similar to those above.

As a preliminary matter, Applicant is respectfully reminded that the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of a primary reference. It is also not that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. In re Keller, 642 F.2nd 414, 425, 208 USPQ 871, 881 (CCPA 1981); In re Young, 927 F.2nd 588, 591, 18 USPQ 2nd 1089, 1091 (Fed. Cir. 1991).

Boezeman (the primary reference) teaches most of Applicant's claimed limitations (as explained in the instant rejection of representative claim 1, and further explained below):

a) time based data with differing data types.

b) various time based clip objects referenced with their own (local) time lines, each object clip (i.e. first and second clips) positioned relative to the other object's timelines as well as relative to a global time line (see especially Boezeman Figure 10, and column 8 lines 15-20).

c) start times and duration times of clips as evidenced at least by spacers, as well as meta-clips relative to each other as well as a global time line (see especially Boezeman Figure 12, where four object tracks "Animation", "AudioPlay", "VideoPlay", and "Image1", are all coordinated clips within object "Scene1" (near top of figure), therefore "Scene1" can be fairly interpreted as a "meta-clip" object containing the above mentioned clips with local and global time lines).

The examiner introduces Hamakawa (secondary reference) to teach the following limitations:

"*... such that the start time and duration of each of the first and second clip objects in the at least one meta-clip are remapped to the global time line upon that at least one meta-clip being positioned on the global time line*".

Although Boezeman's editor (Figure 12) teaches that a user can alter the length, position, etc. of tracks with respect to local and global time line positioning, Boezeman does not specifically teach a "re-mapping" of all track objects with respect to a global time line subsequent to repositioning of a single track by a user.

Hamakawa is an object composition and playback model for handling multimedia data. Figure 12 (final example) and Figure 14 (showing different scenes) reflect the results of using said model (see Hamakawa page 278 section "Implementation" to page 279). Hamakawa's objects are time based. Page 275 Figure 4 discloses various objects positioned together (a composite object, or meta-clip object), each block reflecting a length of time relative to time axis *t*, as well as relative to each other block. When a change is made to one object block, the other bocks are recalculated accordingly (via shrinking and stretching) (see Hamakawa page 277 right column, near bottom "... when a user replaces one object with another, or changes the attribute values of an existing object, his actions will not necessitate modification of other objects, since they will be automatically recalculated as required.". It is to be noted that Hamakawa allows a user to initially change the value of an object (i.e. it's length, for example). Once the user initiates this change, Hamakawa re-maps the other objects automatically as explained above. The examiner applies this re-mapping to Figure 12 of Boezeman, so that if a user changes the length of track "VideoPlay", the other three tracks are re-mapped and repositioned accordingly, relative to local and a global time line.

Hamakawa teaches when a user edits an object, the time lengths of all objects are determined when the highest ranking object is determined, and related composite objects are recalculated accordingly (Hamakawa page 274 left column, near bottom, especially Figure 3 where re-mappings are propagated accordingly from the top composite (i.e. global) object). It is respectfully submitted that Hamakawa's embodiment utilizes forms of

time lines as evidenced by time oriented blocks, as well as time *t* axes. Hamakawa's time blocks and time lines are all relative, however, there is no reason to believe why the skilled artisan cannot combine the teachings of the two references, especially when Boezeman specifically utilizes "relative time" (see Boezeman column 8 lines 5-20, especially lines 16-20 "Relative time (rT) is time that has a starting (or ending or both) point relative to some other part (or parts). Relative time (rT) is specified overtly with respect to the starting or ending of some other occurrence of something and its specific value is not known or declared.". Hamakawa's teaching provides Boezeman the benefit of editing one track without the inconvenience of having to reposition the other tracks accordingly, since this will be accomplished automatically.

Hamakawa is also used to teach "*adding the at least one meta-clip object to the selection of available data sources*". Hamakawa teaches a method incorporating a group of multimedia objects. Since Figure 12 of Boezeman teaches "Scene1" (near top left of figure) which encompasses the four tracks as explained above, Hamakawa's composite object (Hamakawa Figure 4), as well as the hierarchical set of composite objects (each composite object can be a Scene) (Hamakawa Figure 3) can be applied to Boezeman's Figure 12, so that hierarchically based scenes (i.e. Scene1, Scene2, Scene3, all part of Act1, etc.) can be stored and accessed accordingly.

It is respectfully submitted that (at the present time) the combined teachings of the Boezeman and Hamakawa references would have at least suggested to the skilled artisan Applicant's claimed invention.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this

final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William Bashore whose telephone number is **(703) 308-5807**. The examiner can normally be reached on Monday through Friday from 11:30 AM to 8:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild, can be reached on **(703) 305-9792**.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is **(703) 305-3900**.

10. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks
Washington, D.C. 20231
or faxed to:

(703-872-9306) (for formal/after-final communications intended for entry)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Fourth Floor (Receptionist).

William L. Bashore
Patent Examiner, AU 2176
August 18, 2004

JOSEPH FEILD
SUPERVISORY PATENT EXAMINER